Preface to the Tenth Edition

In the preparation of the tenth edition of "Marks," the Editors had two major continuing objectives. First, to modernize and update the contents as required, and second, to hold to the high standard maintained for eighty years by the previous Editors, Lionel S. Marks and Theodore Baumeister.

The Editors have found it instructive to leaf through the first edition of *Marks' Handbook* and to peruse its contents. Some topics still have currency as we approach the end of the twentieth century; others are of historical interest only. Certainly, the passage of 80 years since the publication of the first edition sends a clear message that "things change"!

The replacement of the U.S. Customary System (USCS) of units by the International System (SI) is still far from complete, and proceeds at different rates not only in the engineering professions, but also in our society in general. Accordingly, duality of units has been retained, as appropriate.

Established practice combined with new concepts and developments are the underpinnings of our profession. Among the most significant and far-reaching changes are the incorporation of microprocessors into many tools and devices, both new and old. An ever-increasing number of production processes are being automated with robots performing dull or dangerous jobs.

Workstations consisting of personal computers and a selection of software seemingly without limits are almost universal. Not only does the engineer have powerful computational and analytical tools at hand, but also those same tools have been applied in diverse areas which appear to have no bounds. A modern business or manufacturing entity without a keyboard and a screen is an anomaly.

The Editors are cognizant of the competing requirements to offer the user a broad spectrum of information that has been the hallmark of the Marks' Handbook since its inception, and yet to keep the size of the one volume within reason. This has been achieved through the diligent efforts and cooperation of contributors, reviewers, and the publisher.

Last, the Handbook is ultimately the responsibility of the Editors. Meticulous care has been exercised to avoid errors, but if any are inadvertently included, the Editors will appreciate being so informed so that corrections can be incorporated in subsequent printings of this edition.

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